

Application No. 10/786,075
Responsive to Office action dated February 22, 2006

Attorney Docket No. FS-F03325-01

Remarks

By the present amendment, Claims 1, 2, 5, 8, 14 and 16 have been amended. Claim 20 has been cancelled. Claim 21 has been added. The last full paragraph of page 11 of the Specification has been replaced. By the present amendments to the claims and specification, no new matter is presented.

Rejections under 35 USC 112

In Paragraph 2 of the Office Action, the specification is objected to because a section of the last line on page 11 is unreadable. The Specification has been amended to correct the problem. No new matter has been added.

In Paragraph 3 of the Office Action, Claims 2, 5 10, 14 and 16-20 are rejection under 35 USC 112, second paragraph, as being indefinite. Claims 2, 14 and 16 have been amended to address the concerns of the Examiner. By way of explaining the claim amendments, Applicant makes the following comments.

i) The claims relate to a product. Specifically, the claims relate to a packaging material capable of showing the pattern of the value of the coefficient of friction measured by the measuring method of the coefficient of dynamic friction described in the claims. The amendment is to clarify this point.

ii) In claim 2, "the value of the coefficient of dynamic friction,, showing a waveform which decreases as time passes" does not mean to increase the range for the coefficient of dynamic friction (0.300 to 0.600), and means variations within the range of 0.300 to 0.600.

iii) "the value of the coefficient of dynamic friction,, showing a waveform which decreases as time passes" means that the coefficient of dynamic friction shows a pattern as shown in Fig. 2A.

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Rejection under 35 USC 103

In Paragraph 5 of the Office Action, Claims 1-19 are rejected under 35 USC 103(a) as being obvious over Baker in view of Rahman and Matsunaga.

Claims 1, 8 and 16 have been amended to overcome the rejection.

The present specification describes that the simultaneous feeding of two pieces of packaging material (e.g., cartons) in the supplying section of the packaging machine, can be prevented, and an excellent performance of the packaging machine can be provided, and also describes the relationships between these and the coefficient of dynamic friction (see, page 12, line 24 to page 15, line 21).

If the dynamic-friction coefficient of the OP varnish layer 3 is less than 0.300, the slipping properties of the packaging material surface become too high. In this case, the phenomenon in which a carton jumps out from the carton box-making section of the packaging machine is likely to occur. If the dynamic-friction coefficient is greater than 0.600, the slipping properties are not successfully exhibited between surfaces of the stacked packaging materials when the packaging materials are fed out at a high speed, with a load applied thereto, whereby simultaneous feeding of two cartons in the carton supplying section, or the like may be caused. Either case is not preferable. Further, unless the coefficient of static friction is in the range of 0.600 to 0.900, there is a high possibility that simultaneous feeding of two cartons in the carton supplying section, or the like may occur. In the packaging material of the present invention, when variations in the coefficient of dynamic friction are recorded in a chart by setting the pulling rate of a test sample at 100 mm/minute and the traveling speed of recording paper at 50 mm/minute in the above-described friction coefficient test, the values of the coefficient of dynamic friction preferably plot a waveform which decreases as time passes for at least 30 seconds from an initial stage of measurement of the dynamic-friction coefficient.

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In a case in which the coefficient value of dynamic friction increases as time passes or plots a waveform of shifting substantially in parallel in the above-described measurement, the packaging materials are not stably fed out, when fed out by a high-speed packaging machine at a high speed. In such cases, for example, even when the coefficients of dynamic friction and static friction are set in the above-described predetermined ranges, there is a possibility that a drawback that simultaneous feeding of two cartons in a carton supplying section may occur (see the present specification, on page 12, line 24 to page 13, line 13, and page 14, line 21 to page 15, line 12).

Therefore, it is preferable that the packaging material (i) has the coefficient of dynamic friction in a range of 0.300 to 0.600 or (ii) is capable of exhibiting the value of the coefficient of dynamic friction, when plotted, showing a waveform which decreases as time passes for at least 30 seconds from an initial stage of measurement of dynamic-friction coefficient, in order to prevent the simultaneous feeding of two cartons in the carton supplying section and provide an excellent performance of the packaging machine. These aspects are not disclosed in the cited prior art. Therefore, the present rejections under 35 USC 103 (a) have been overcome.

Notice of References Cited

Finally, appears that there is a discrepancy between the list in "Notice of References Cited" and the references actually described in the Office Action. For example, Matsunaga et al. (5609930), Arent et al., Bertry et al., Butler et al., Sato et al., Bruchmann et al. are described in the Office Action, on pages 4 to 7, but are not listed in the list of "Notice of References Cited". Sakiyama et al. is listed in "Notice of Reference Cited" but is not described in the Office Action.

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In view of the foregoing amendments and remarks, it is respectfully submitted that all of the pending claims are in condition for allowance. Favorable action is respectfully requested.

Respectfully submitted,



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